

Bay Area AQMD Risk Management Policy for Diesel-Fueled Engines

(Revised January 11, 2002)

This document summarizes criteria that have been established by the APCO for approval of permits for new/modified diesel-fueled, reciprocating, engines ("diesel-fueled engines"). These criteria have been established under Section A(iii) of the District's Risk Management Policy based on risk management considerations, and do not supercede any other applicable District Rules and Regulations. Definitions of key terms used in this policy shall be consistent with those given in Risk Management Policy for Permitting of New Stationary Diesel-Fueled Engines, California Air Resources Board, October 2000.

The APCO has determined that proposed projects with permitted diesel-fueled engines meeting one or more of the following two criteria are acceptable without further risk management considerations. Risks are to be calculated using the applicable Unit Risk Factor for diesel particulate matter (PM) at the point of maximum residential or maximum off-site worker exposure, whichever is greater. For emergency standby engines, risks are to be calculated for all engine operation excluding emergency use (as defined in Regulation 9-8-231).

- A. The project is acceptable if the annual emissions associated with the project would result in an incremental cancer risk equal to or less than $1.0E-06$ (one in a million), were the exposure to continue for 70 years.
- B. The project is acceptable if: (1) the annual emissions associated with the project would result in an incremental cancer risk greater than $1.0E-06$ (one in a million) and equal to or less than $1.0E-05$ (ten in a million), were the exposure to continue for 70 years; and (2) TBACT has been applied to permitted sources. TBACT for diesel-fueled engines is as follows:
 - a) TBACT is a low emitting, spark-ignited, gas-fueled engine with lean burn combustion or rich burn with Non-Selective Catalytic Reduction (see District's *BACT/TBACT Workbook*). A diesel-fueled engine will be permitted only if a gas-fueled engine, or electric motor, is not practical (e.g., a remote location without natural gas availability or electric power, the engine is to be used exclusively for emergency standby purposes, or only a diesel-fueled engine will meet the portability and/or power/torque/rpm requirements of the application under review).
 - b) If a diesel-fueled engine is shown by the permit applicant to be necessary, then TBACT is a CARB or EPA certified engine with a PM certified level (or equivalent emission rate) no greater than 0.1 g/bhp-hr .¹

A permit applicant may apply alternative and/or additional emissions control (e.g., catalyst-based diesel particulate filters (DPFs), diesel oxidation catalysts, ultra-low sulfur diesel fuel) or other risk reduction measures (e.g., increasing stack height within what is

Bay Area AQMD Risk Management Policy for Diesel-Fueled Engines

(Revised January 11, 2002)

considered Good Engineering Practice, maximizing source/receptor separation distances, modifying operating hours to minimize public exposure) as necessary to reduce risks to acceptable levels specified in one of the two listed criteria above (A or B). All engines not equipped with a DPF must be “plumbed” to facilitate the installation of a DPF at a future date.

Permit applications not meeting one of the above criteria shall be routed to the APCO with a recommendation for denial. The permit engineer shall collect any additional information regarding the project requested by the APCO that will be considered in the risk management process.

FOOTNOTE:

- ¹ A PM certified level no greater than 0.1 g/bhp-hr means an emission level of 0.15 g/bhp-hr or less as determined during a steady-state engine certification test (ISO 8178).